



Case study

Clarios increases sales revenue with the Fosfor Decision Cloud on Snowflake

Creating a next-gen data and analytics ecosystem to optimize processing time and design efficiency



An overview

With Snowflake and Fosfor Decision Cloud, Clarios increased its battery sales revenue with a multifold increase in its operational efficiency.

90%

improvement
in design effort
efficiency

80%

reduction
in batch failure

80%

reduction
in batch
processing time

Solution

Data and analytics

Vertical

Manufacturing

Major technology used

Snowflake

Module used

Spectra,
the Fosfor Data Designer

Data source

Oracle SAP, SQLServer

Destination

Snowflake

About the client

Clarios is an advanced energy storage solutions company that develops, manufactures and distributes a portfolio of evolving battery technologies.

Clarios creates the most advanced battery technologies for virtually every type of vehicle. They are a global leader in advanced energy storage solutions, powering one in three of the world's vehicles. They produce more than 150 million batteries - one-third of the industry's output - every year, and they continue to build and expand their capacity to meet their customer's future demands.

Challenges

Clarios's security team suspected there was a malware attack (crypto-mining) on an HDInsight (HDI) cluster. They needed to decommission the HDI clusters from all three existing client environments and reconfigure them to use the Snowflake Pushdown Optimization (PDO) approach. This change would:

- Remove the risk of malware
- Achieve more efficiency in resolution performance
- Ultimately, reduce costs

This situation presented a unique opportunity to build a solution to reduce processing time and increase design efficiency to increase the sales revenue for the company.

Technical challenge

The challenge became that Fosfor needed to build a scalable and high-performance cloud-based ecosystem. This network needed to connect data from various systems and across multiple applications to serve Clarios's diverse business needs.

In summary, these two points also needed to be addressed:

- The HDI cluster was susceptible to malware attacks, creating security risks.
- Due to malware attacks, multiple unwanted jobs were getting triggered on the HDI cluster, driving up cost.

Solution

Using Spectra, the Fosfor Data Designer, Clarios built a solution that:

- Wherever Snowflake was used as an input and output database, it was implemented as a run engine on the Fosfor Decision Cloud.
- For pipelines other than Snowflake database connectors, Azure Data Factory (ADF) tool was used to implement a file-based system. Furthermore, other on-premises database systems were integrated with the Fosfor Decision Cloud pipelines to support completion of end-to-end batches.
- Respective changes were made in all applications to support the new Snowflake PDO, the Fosfor Decision Cloud, and ADF pipelines.

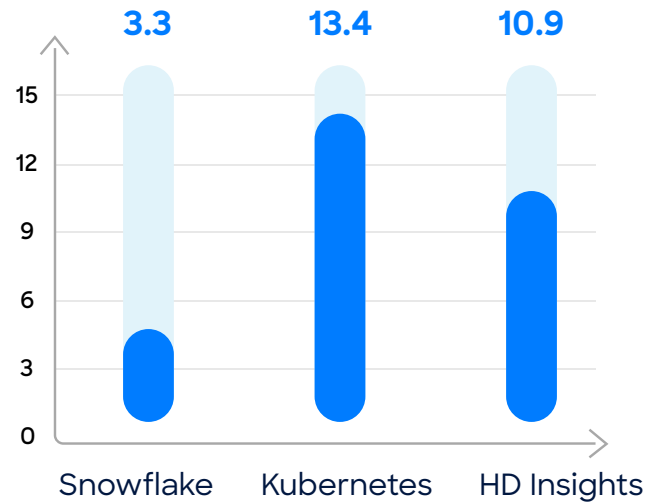
Value delivered

Snowflake vs. other run engines

Development

- Jobs running on Snowflake consume less than a third of the credits consumed by jobs running on HDInsight.
- Jobs running on Snowflake consume less than a fourth of the credits consumed by jobs running on Kubernetes.

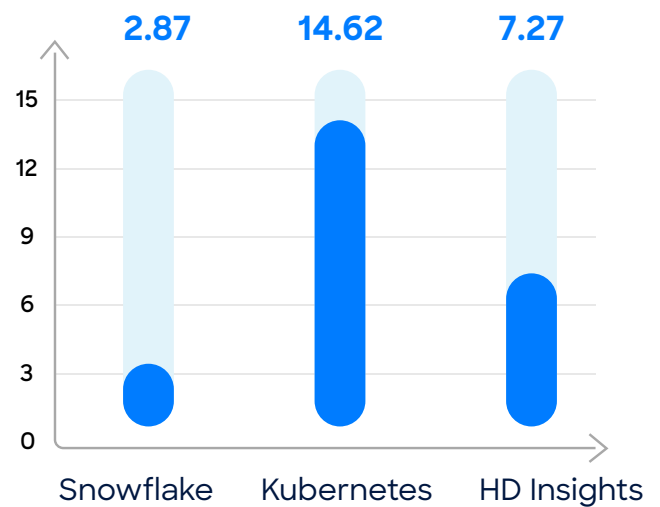
Credits comparison : DEV

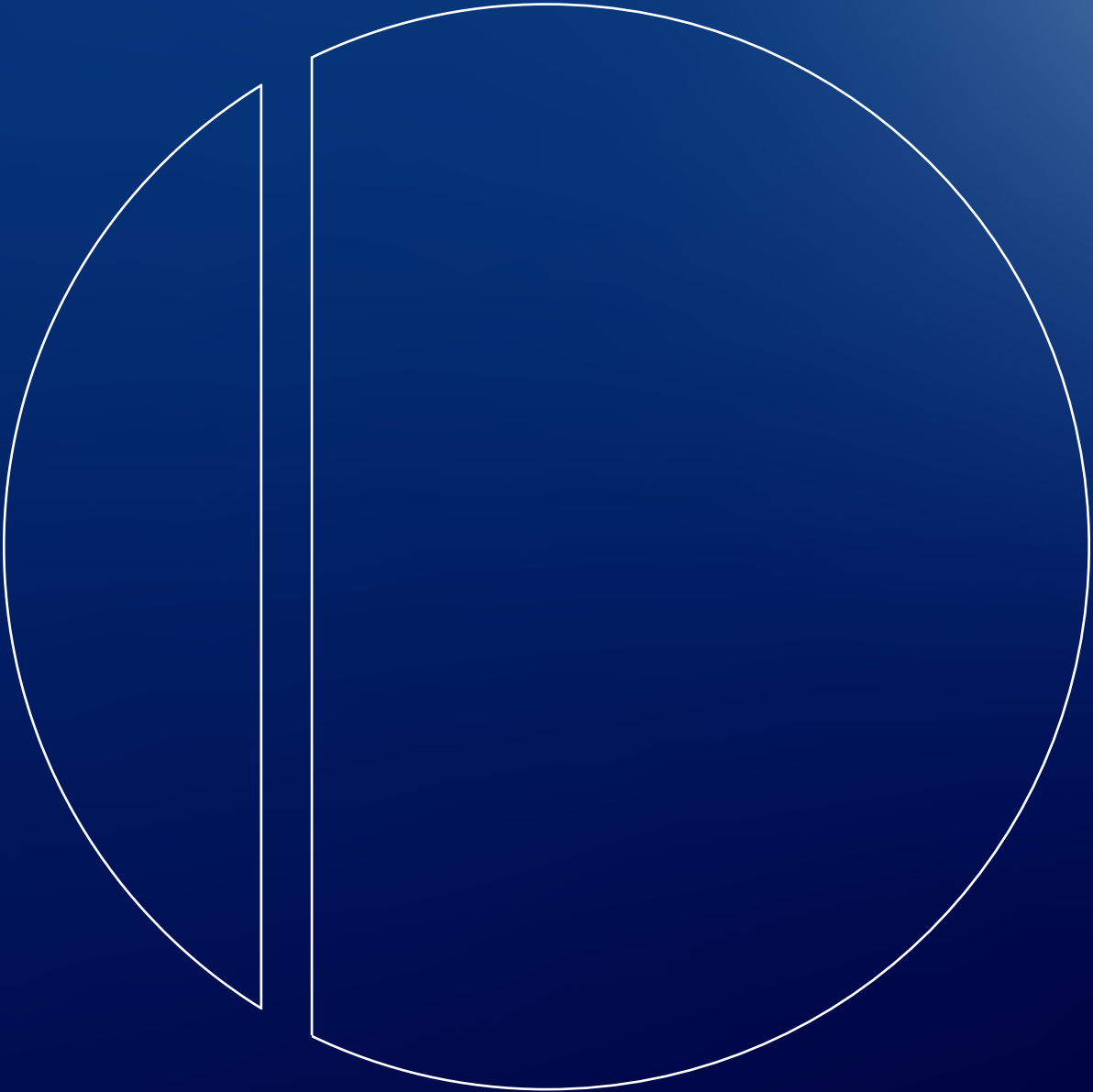


Quality assurance

- Jobs running on Snowflake consume less than half of the credits consumed by jobs running on HDInsight.
- Jobs running on Snowflake consume less than a fifth of the credits consumed by jobs running on Kubernetes.

Credits comparison: QA





The Fosfor Decision Cloud is a connected fabric that unifies and amplifies the value promised by the modern data ecosystem, which is made up of infrastructure, data, and application clouds. Fosfor enables organizations to effectively curate data, generate impactful insights, and formulate effective decisions to deliver the long-sought promise of data and AI: optimal business outcomes. Fosfor is part of LTIMindtree, a global technology consulting and digital solutions company. For more information, visit www.fosfor.com.